

WHAT IS CLAIMED IS:

1. An image heating apparatus for heating an image formed on a recording material, comprising:
a heater, said heater including a metallic
5 substrate;
a film moving in contact with said heater; and
a back-up roller for defining a nip with said heater via said film;
wherein said metallic substrate has a convex
10 surface on a side of the nip and a concave surface on an opposite surface.
2. An image heating apparatus according to claim 1, wherein said metallic substrate is obtained
15 by bending a flat metal plate.
3. An image heating apparatus according to claim 1, wherein said metallic substrate has an arch-
20 shape.
4. An image heating apparatus according to claim 1, further comprising a holder for holding said heater, a surface on a side of the nip of said holder being connected smoothly to a surface on the side of
25 the nip of said heater.
5. An image heating apparatus according to

claim 4, wherein a curvature of the surface on the nip side of said holder is substantially same as a curvature of the surface on the nip side of said heater.

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6. An image heating apparatus according to claim 4, wherein said holder has a guide surface for guiding said film.

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7. An image heating apparatus according to claim 1, wherein said heater has a first insulating layer on said metallic substrate, a heat generating resistor layer on said first insulating layer and a

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resistor layer.

8. An image heating apparatus according to claim 7, wherein said second insulating layer of said heater is in contact with said film.

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9. An image heating apparatus according to claim 1, wherein a width in a moving direction of the recording material of said metallic substrate is greater than a width of the nip.

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10. An image heating apparatus according to claim 9, wherein said metallic substrate has a

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cylindrical shape.

11. An image heating apparatus according to
claim 10, wherein said metallic substrate is fixed so
5 as not to rotate with respect to said apparatus.

12. An image heating apparatus according to
claim 1, wherein a thickness of said metallic
substrate is in a range of 0.5 mm to 2 mm.

10 13. An image heating apparatus according to
claim 1, wherein said film has an elastic layer.

14. A heater comprising:
15 a metallic substrate; and
a heat generating resistor;
wherein said metallic substrate has a convex
surface on one side and a concave surface on an
opposite side.

20 15. A heater according to claim 14, wherein
said heat generating resistor is provided on the
convex surface of said metallic substrate.

25 16. A heater according claim 14, further
comprising a first insulating layer on said metallic
substrate, wherein said heat generating resistor

layer is provided on said first insulating layer and a second insulating layer is provided on said heat generating resistor layer.

- 5 17. A heater according to claim 14, wherein said metallic substrate has a cylindrical shape.

18. A heater according to claim 14, wherein a thickness of said metallic substrate is in a range of
10 0.5 mm to 2 mm.

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